

$^{161}\text{Dy}(n,n'\gamma)$ 1983BoZP

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. W. Reich	NDS 112,2497 (2011)	1-Jun-2011

1983BoZP: $^{161}\text{Dy}(n,n'\gamma)$, E(n) ranged from 48 to 1612 keV. Enriched (92.1% ^{161}Dy) target. γ radiation studied at $\theta=90^\circ$ with respect to the beam direction using a Ge(Li) detector having a resolution of 3.8 keV at 1.3 MeV. This abstract lists level energies, J^π values and band assignments for 25 levels. No γ data or other details are given.

 ^{161}Dy Levels

E(level) [†]	J^π [‡]	Comments
0 [#]	5/2 ⁺	
25.56 [@]	5/2 ⁻	
43.84 [#]	7/2 ⁺	
74.61 ^{&}	3/2 ⁻	
101.0 [#]	9/2 ⁺	
103.07 [@]	7/2 ⁻	
131.77 ^{&}	5/2 ⁻	
184.3 [#]	11/2 ⁺	
201.06 [@]	9/2 ⁻	
212.97 ^{&}	7/2 ⁻	
267.4 [#]	13/2 ⁺	
313.8 ^{&}	9/2 ⁻	
320.3 [@]	11/2 ⁻	
366.93 ^a	1/2 ⁻	
407.0 [#]	15/2 ⁺	
418.7 ^a	3/2 ⁻	
443.2 ^{&}	11/2 ⁻	
451.39 ^a	5/2 ⁻	
461.3 [@]	13/2 ⁻	E(level): from ($\alpha,3n\gamma$), 1972Hj01 report 457.4 for the 13/2 ⁻ level energy.
485.4 ^b	11/2 ⁻	
507.4 [#]	17/2 ⁺	
550.1 ^c	3/2 ⁺	
568.2 ^a	7/2 ⁻	
587.1 ^{&}	(13/2 ⁻)	J^π : reported as 13/2 ⁻ by 1983BoZP, but no supporting data were given.
607.4 ^d	1/2 ⁺	

[†] Values from 1983BoZP.

[‡] From adopted values.

[#] Band(A): $K^\pi=5/2^+$ g.s. band. configuration=5/2(642).

[@] Band(B): 5/2[523] band.

[&] Band(C): 3/2[521] band.

^a Band(D): 1/2[521] band.

^b Band(E): 11/2[505] bandhead.

^c Band(F): $\Delta N=2$ -mixed 3/2[402]+3/2[651] bandhead.

^d Band(G): $\Delta N=2$ -mixed 1/2[400]+1/2[660] bandhead.

¹⁶¹ Dy(n,n'γ)		1983BoZP	
Band(C): 3/2[521] band			
<u>(13/2⁻)</u>	<u>587.1</u>	Band(D): 1/2[521] band	
		<u>7/2⁻</u>	<u>568.2</u>
Band(A): K ^π =5/2 ⁺ g.s. band		Band(F): ΔN=2-mixed 3/2[402]+3/2[651] bandhead	
<u>17/2⁺</u>	<u>507.4</u>		<u>3/2⁺</u>
			<u>550.1</u>
Band(B): 5/2[523] band		Band(E): 11/2[505] bandhead	
<u>13/2⁻</u>	<u>461.3</u>	<u>11/2⁻</u>	<u>485.4</u>
		<u>5/2⁻</u>	<u>451.39</u>
		<u>11/2⁻</u>	<u>443.2</u>
		<u>3/2⁻</u>	<u>418.7</u>
<u>15/2⁺</u>	<u>407.0</u>		
		<u>1/2⁻</u>	<u>366.93</u>
		<u>11/2⁻</u>	<u>320.3</u>
		<u>9/2⁻</u>	<u>313.8</u>
<u>13/2⁺</u>	<u>267.4</u>		
		<u>7/2⁻</u>	<u>212.97</u>
		<u>9/2⁻</u>	<u>201.06</u>
<u>11/2⁺</u>	<u>184.3</u>		
		<u>5/2⁻</u>	<u>131.77</u>
<u>9/2⁺</u>	<u>101.0</u>	<u>7/2⁻</u>	<u>103.07</u>
		<u>3/2⁻</u>	<u>74.61</u>
<u>7/2⁺</u>	<u>43.84</u>		
		<u>5/2⁻</u>	<u>25.56</u>
<u>5/2⁺</u>	<u>0</u>		

$^{161}\text{Dy}(\text{n},\text{n}'\gamma)$ **1983BoZP (continued)**

Band(G): $\Delta N=2$ -mixed
1/2[400]+1/2[660]
bandhead

1/2⁺ 607.4

$^{161}_{66}\text{Dy}_{95}$